



AMALGAMATED WIRELESS VALVE CO. PTY. LTD.

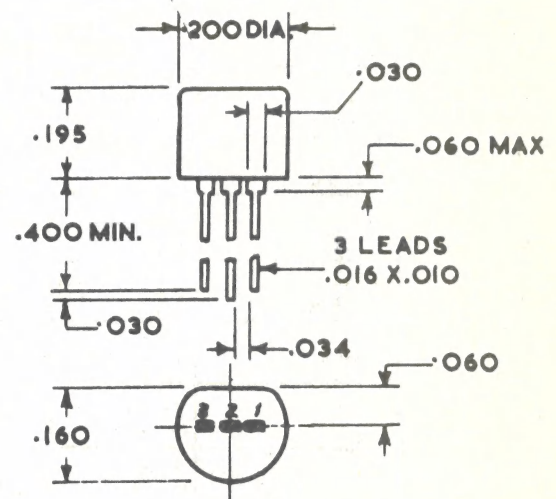
| | |
|-------|-------|
| | AS306 |
| AS304 | AS307 |
| AS305 | AS308 |

These units are n-p-n silicon planar transistors in an epoxy package for general H.F. and V.H.F. application. They are intended primarily for use in the tuner and if-amplifier circuits of vhf television receivers; and are also useful in communications equipment up to about 260 MHz.

Types AS304 and AS305 are vhf types, for use as mixer and local oscillator respectively in TV tuners to 220 MHz. Types AS306, AS307, and AS308 are for use in 36 MHz TV if-amplifiers.

These types feature high transition frequencies and low cutoff currents.

DIMENSIONAL OUTLINE



Dimensions in inches

ABSOLUTE MAXIMUM RATINGS

| | |
|---|-------------|
| Collector-base voltage | = 45 volts |
| Collector-emitter voltage | = 45 volts |
| (Base-emitter resistance = 100K Ω) | |
| Emitter-base voltage | = 4.5 volts |
| Emitter current | = 50mA |
| Base current | = 25mA |

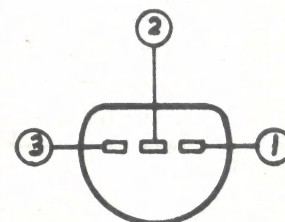
THERMAL RATINGS

Dissipation in an ambient temperature up to 25°C ----- 200mW max.
Derate linearly to zero at 135°C.

During soldering lead temperature must not exceed 255°C for
10 secs. max. within 1/16" of can.

Storage temperature -25°C to 135°C.

TERMINAL DIAGRAM



Lead 1-Emitter
Lead 2-Base
Lead 3-Collector

AS306
AS304 AS307
AS305 AS308

CHARACTERISTICS AT 25°C

| PARAMETER | CONDITIONS | MIN. | TYP. | MAX. | UNITS |
|------------------|---------------------------------------|------|------|------|---------|
| V_{BE} | $I_{BE} = 20mA$ | | | 1.2 | V |
| I_{CBO} | $V_{CB} = 1V$ | | | 20 | nA |
| I_{CBO} | $V_{CB} = 45V$ | | | 1 | μA |
| I_{EBO} | $V_{EB} = 4.5V$ | | | 1 | μA |
| V_{EBF} | $V_{CB} = 45V$ | | | 1 | V |
| V_{CER} | $I_C = 100\mu A, R_{BE} = 100K\Omega$ | 45 | | | V |
| f_T | $V_{CE} = 6V, I_E = 2mA, f=100MHz$ | | | | |
| | AS304, AS305 | | 1000 | | MHz |
| | AS306, AS307, AS308 | | 800 | | MHz |
| I_B | $V_{CE} = 6V, I_E = 1mA$ | | | | |
| | AS304 | 3.6 | | 25 | μA |
| | AS305, AS308 | 3.6 | | 37 | μA |
| | AS306 | 6 | | 25 | μA |
| | AS307 | 11.6 | | 37 | μA |
| $C_{b'c}$ | $V_{CE} = 8V, I_E = 0$ | | | 1.4 | pf |
| $R_{bb'}C_{b'c}$ | $V_{CE} = 6V, I_E = 2mA, f=31.9MHz$ | | 14 | | ps |
| | | | | | |
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With the Compliments of...

AMALGAMATED WIRELESS VALVE CO. PTY. LTD.

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